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EXAMINER

TO, BAOQUOC N

ART UNIT

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/559,223

Applicant(s)

ROCHE ET AL.

Examiner

Baoquoc N To

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-121, 132-137, 140-145 and 148-150 is/are pending in the application.
- 4a) Of the above claim(s) 147 is/are withdrawn from consideration, cancelled.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-121, 132-137, 140-145 and 148-150 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

1. Claim 47 is cancelled and claims 1, 36, 37, 38, 43, 51, 59, 82-85, 103, 104, 132-137, and 140-145. Claims 148-150 are newly added on the amendment filed on 06/26/03.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 36, 37, 38, 43, 132-134, 140-145 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-50, 132-134 and 140-142 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanjo et al. (US. Patent No. 5,778,361) and in view of Middlebrook (US. Patent No. 5,930,809).

Regarding on claims 1, 132 and 140, Nanjo teaches a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of:

receiving a query containing an unspecified portion (col. 6, lines 26-35);

identifying one or more documents in the index that contain a match for at least a portion of the query (col. 7, lines 24-28); and

Nanjo does not explicitly teach locating one or more strings which are matches for the unspecified portion in the query within the identified one or more documents; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more document. However, Middlebrook teaches, "In the map box 34 is shown after a user has selected the search option from the choice menu 54 and has entered a search inquiry. In the map box 34 a position indicator 56 appears at all the points in the based typographic map 36 that corresponding to the occurrence of the search inquiry of the body of text 32 (FIG. 2). This teaches the wildcard is the unspecified portion and indicator 56 locate the matching of the search. In addition, Middlebrook also teaches, a list of possible nouns appearing in the text is compiled, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basis of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Nanjo to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Regarding on claim 2, Nanjo teaches the index identifies documents containing terms or groups of terms that satisfy restrictions (col. 1, lines 48-50).

Regarding on claim 3, Middlebrook teaches the documents are accessible over the Internet (col. 3, lines 10-15).

Regarding on claim 4, Middlebrook teaches the documents comprise World Wide Web pages (col. 3, lines 10-15).

Regarding on claim 5, Nanjo teaches the step of accumulating information about a match as it is located (col. 10, lines 8-13).

Regarding on claim 6, Middlebrook teaches the step of: assigning a score to a match (col. 6, lines 37-41).

Regarding on claim 7, Middlebrook teaches the locating step comprises locating a match within a plurality of documents, and wherein the score reflects the number of times an instance of the match is located among a plurality of documents (col. 6, lines 24-34).

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Regarding on claim 8, Nanjo teaches the step of: outputting one or more of the matches, or a portion thereof, thereby providing a result for the query (col. 8, lines 45-57).

Regarding on claim 9, Nanjo teaches the step of: outputting identifiers or locations of one or more of the documents that contain a match or portion thereof that was output in the outputting step (col. 8, lines 50-53).

Regarding on claim 10, Middlebrook teaches a location of a document comprises a uniform resource locator (col. 3, lines 10-15).

Regarding on claim 11, Middlebrook teaches the step of: ranking the documents that contain a match, and wherein the second outputting step comprises outputting the document identifiers or locations of the documents that contain a match in an order based on the ranking (col. 4, lines 64-67).

Regarding on claim 12, Middlebrook teaches the ranking step comprises ranking a document based on the number of times a match is located within the document (col. 6, lines 36-41).

Regarding on claim 13, Nanjo teaches the step of storing data identifying terms that satisfy restrictions (col. 6, lines 26-34).

Regarding on claim 14, Nanjo teaches the query comprises a partially unspecified term (\* represents unspecified term) (col. 6, lines 22-35).

Regarding on claim 15, Nanjo teaches the partially unspecified term includes a restriction that comprises a morphological feature (col. 6, lines 19-21).

Regarding on claim 16, Nanjo teaches the partially unspecified term includes a restriction that comprises a syntactic feature (col. 6, lines 26-30).

Regarding on claim 17, Nanjo teaches the partially unspecified term includes a restriction that comprises a computer program (col. 6, lines 26-30).

Regarding on claim 18, Nanjo teaches the locating step comprises:  
locating a potential match for the query within a document, wherein the potential match matches the specified portion of the query and wherein the potential match includes a portion that corresponds to the unspecified term (col. 6, lines 25-35); and  
determining whether the portion of the potential match that corresponds to the unspecified term satisfies a restriction included in the partially unspecified term (col. 6, lines 25-35).

Regarding on claim 19, Nanjo teaches the index comprises locations of terms within documents (col. 4, lines 10-13).

Regarding on claim 20, Nanjo teaches the locating step comprises: determining the location of a term in the query within a document using the index (col. 10, lines 10-15); and

locating a match for the query based on the location of the term within the document (col. 10, lines 15-20).

Regarding on claim 21, Nanjo teaches the step of: storing a match or a portion thereof (col. 5, lines 25-30).

Regarding on claim 22, Nanjo teaches the step of: storing a score for the match or portion thereof (col. 5, lines 25-30).

Regarding on claim 23, Nanjo teaches the step of: storing a plurality of matches or portions thereof (col. 5, lines 25-30).

Regarding on claim 24, Nanjo teaches the step of: storing a score for a plurality of matches or portions thereof (col. 5, lines 25-30).



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Regarding on claim 25, Middlebrook teaches the step of: ranking a plurality of the located matches or portions thereof (col. 6, lines 36-41).

Regarding on claim 26, Middlebrook teaches the ranking step comprises: ranking a located match or a portion thereof based on the content of a plurality of documents identified in the identifying step (col. 6, lines 36-41).

Regarding on claim 27, Middlebrook teaches the ranking step comprises: ranking a located match or a portion thereof based on the content of a majority of documents identified in the identifying step (col. 6, lines 35-41).

Regarding on claim 28, Middlebrook teaches the ranking is based on one or more features selected from the list consisting of the location of a match within a document, a weight assigned to a document that contains a match, the age of a document that contains a match, the source of a document that contains a match, and a format feature of a match within a document (col. 6, lines 35-41).

Regarding on claim 29, Middlebrook teaches the ranking step comprises: ranking a located match or a portion thereof based on the number of times an instance of the match is located within a plurality of documents identified in the identifying step (col. 6, lines 35-41).

Regarding on claim 30, Middlebrook teaches the ranking step comprises:  
ranking a located match or a portion thereof based on the number of times an instance  
of the match is located within a majority of documents identified in the identifying step  
(col. 6, lines 35-41).

Regarding on claim 31/25, 31/27 or 31/28, Middlebrook teaches the step of:  
outputting one or more of the located matches, or one or more portions thereof, in an  
order based on the ranking, thereby providing a result for the query (col. 4, lines 65-67).

Regarding on claim 32, Middlebrook teaches the step of: outputting an indication  
of the ranking of a located match or portion thereof (col. 4, lines 65-67).

Regarding on claim 33, Middlebrook teaches the step of: outputting identifiers or  
locations of one or more of the documents that contain a match or a portion thereof that  
was output in the outputting step (col. 4, lines 65-67).

Regarding on claim 34, Middlebrook teaches a location of a document comprises  
a uniform resource locator (col. 4. lines 10-15).

Regarding on claim 35, Middlebrook teaches the step of: ranking a plurality of  
documents, and wherein the second outputting step comprises outputting identifiers or  
locations of the documents in an order based on the ranking (col. 6, lines 35-41).

Regarding on claim 36, Nanjo teaches a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of:

receiving a query containing an unspecified portion (col. 6, lines 26-35);

identifying one or more documents in the index that contains a match for at least a portion of the query (col. 7, lines 24-28).

locating plurality of strings which are matches for the query within the identified one or more documents (col. 6, lines 30-32).

Nanjo teach does not explicitly teach producing results in which each of said plurality strings is ranked in accordance with a frequency of said each string within one or more documents. However, Middlebrook teaches, "a list of possible nouns appearing in the text is compile, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basic of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Nanjo to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Claim 37 is reject same as claim 1, Nanjo also teaches, storing an index identifying documents containing terms (col. 7, lines 24-28);

Regarding on claims 38, 133, and 141, Nanjo teaches a method of fulfilling an information need comprising the steps of:

receiving a query containing an unspecified portion (\*), the unspecified portion including an unspecified term (the \* at the beginning or the end would search for terms that follow the other search terms) (col. 6, lines 22-34); and

identifying a string which is a match for the unspecified portions in the query within a body of information stored on a computer-readable medium (an index term that includes the search term is considered a match) (col. 6, lines 30-32); and

Nanjo does not explicitly teach producing results in which said string is ranked in accordance with a frequency of said each string within a body of information. However, Middlebrook teaches, "a list of possible nouns appearing in the text is compile, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basic of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Nanjo to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Regarding claim 39, Middlebrook teaches the body of information is accessible over the Internet (col. 3, lines 10-15).

Regarding claim 40, Middlebrook teaches the body of information comprises World Wide Web pages (hyperlink) (col. 3, line 10-15).

Regarding 41, Nanjo teaches the query comprises a partially unspecified term (col. 6, lines 22-34).

Regarding on claim 42, Nanjo teaches the step of: outputting the match or a portion thereof (col. 10, lines 15-20).

Claims 43, 134 and 142, Nanjo teaches a method of fulfilling information need comprising the steps of:

receiving a query containing an unspecified portion (\*), the unspecified portion including an unspecified term (the \* at the beginning or the end would search for terms that follow the other search terms) (col. 6, lines 22-34); and

identifying a plurality of string which are matches (match) for the unspecified portion of the query within a body of information stored on a computer-readable medium (col. 6, lines 30-31).

Nanjo does not explicitly teach, "producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body of information. However, Middlebrook teaches, "a list of possible nouns appearing in the text is compile, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basic of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Nanjo to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Regarding on claims 44 and 52, Middlebrook teaches the body of information is accessible over the Internet (intranet) (col. 3, lines 10-15).

Regarding on claims 45 and 53, Middlebrook teaches the body of information comprises World Wide Web pages (col. 3, lines 10-15).

Regarding on claim 46, Nanjo teaches the step of: outputting one or more of the matches or portions thereof (col. 8, lines 35-40).

Regarding on claims 47 and 57-58, Middlebrook teaches the steps of: ranking a plurality of the matches or portions thereof; and outputting one or more of the matches or portions thereof in an order based on the ranking (col. 6, lines 35-41).

Regarding on claim 48, Middlebrook teaches the ranking is based on the number of times an instance of a match or a portion thereof is identified (col. 6, lines 25-36).

Regarding on claim 49, Middlebrook teaches the step of: assigning a score to a match (col. 6, lines 25-36).

Regarding on claim 50, Middlebrook teaches the step of: storing a match (col. 6, lines 30-35).

4. Claims 51-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nanjo et al. (US. Patent No. 5,778,361) and in view of Middlebrook (US. Patent No. 5,930,809).

Regarding on claims 51, Nanjo teaches a method of fulfilling an information need comprising the steps of:

Receiving a query containing an unspecified portion (\*), the unspecified portion including an unspecified term (the \* at the beginning or the end would search for terms that follow the other search terms) (col. 6, lines 22-34); and

identifying a match (match) for the query within a body of information stored on a computer readable medium (col. 6, lines 30-31).

Nanjo does not explicitly teach producing results in which each of said plurality of strings is ranked in accordance with a frequency of said each string within a body in information. However, Middlebrook teaches, "a list of possible nouns appearing in the text is compile, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basic of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Nanjo to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Regarding on claim 52, Middlebrook teaches the body of information is accessible over the Internet (intranet) (col. 3, lines 10-15).

Regarding on claim 53, Middlebrook teaches the body of information comprises World Wide Web pages (col. 3, lines 10-15).

Regarding on claim 54, Middlebrook teaches the step of: outputting one or more of the portions of the identified matches that correspond to the designated unspecified term (col. 4, lines 65-67).



Regarding on claim 55, Middlebrook teaches the step of: ranking, for a plurality of the identified matches, the portion of each match that corresponds to the designated unspecified term (col. 6, lines 36-41).

Regarding on claim 56, Middlebrook teaches the ranking is based on the number of times an instance of a match including the portion that corresponds to the designated unspecified term is identified (col. 6, lines 36-41).

Regarding on claim 57, Middlebrook teaches the step of: outputting one or more of the portions that correspond to the designated unspecified term in an order based on the ranking (col. 4, lines 65-67).

Regarding on claim 58, Middlebrook teaches the step of: outputting one or more of the matches in an order based on the ranking (col. 4, lines 65-67).

5. Claims 59-121, 135-137 and 143-145 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wical (US. Patent No. 5,953,718) in view Middlebrook (US. Patent No. 5,930,809).

Regarding on claims 59, 83, 135, and 143, Wical teaches a method of fulfilling an information need based on documents and an index stored on a computer-readable medium comprising the steps of:

storing contexts for terms, wherein a context occurs in a document (col. 5, lines 26-34);

storing information identifying a document in which a context occurs (col. 23, lines 50-53);

Wical does not explicitly teach receiving a query containing an unspecified portion; identifying one or more strings which matches for the unspecified portion of the query within the contexts; and producing results in which each of said one or more strings is ranked in accordance with a frequency of said each string within one or more contexts. However, Middlebrook teaches, "the user is provided with the opportunity to type in a search query. The search query can contain any sequence of characters and may or may not contain wildcard characters... In the map box 34 is shown after a user has selected the search option from the choice menu 54 and has entered a search inquiry. In the map box 34 a position indicator 56 appears at all the points in the based typographic map 36 that corresponding to the occurrence of the search inquiry of the body of text 32 (FIG. 2). This teaches the wildcard is the unspecified portion and indicator 56 locate the matching of the search. In addition, Middlebrook also teaches, a list of possible nouns appearing in the text is compiled, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basis of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Wical to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Regarding on claim 60, Wical teaches the index identifies documents containing terms that satisfy restrictions (col. 22, lines 11-15).

Regarding on claims 61 and 90, Wical teaches the step of storing data identifying terms that satisfy restrictions (col. 3, lines 39-42).

Regarding on claims 62 and 91, Middlebrook teaches the query comprises a partially unspecified term (wildcard) (col. 4, lines 55-61).

Regarding on claims 63 and 92, Wical teaches the partially unspecified term includes a restriction that comprises a morphological feature (col. 22, lines 8-13).

Regarding on claims 64 and 93, Wical teaches the partially unspecified term includes a restriction that comprises a syntactic feature (col. 14, lines 5-10).

Regarding on claims 65 and 94, Middlebrook teaches the partially unspecified term includes a restriction that comprises a computer program (col. 4, lines 55-61).

Regarding on claim 66, Wical teaches the step of: locating, among the stored contexts, contexts that contain a match for at least one term in the query; and wherein the identifying step comprises identifying matches for the query within the located contexts (col. 6, lines 35-38).

Regarding on claims 67 and 95, Wical teaches the storing step comprises: storing, for a plurality of contexts, a finite state automaton that represents the context (col. 6, lines 34-39).

Regarding on claims 68 and 96, Wical teaches the step of: outputting one or more of the identified matches, or portions thereof, thereby providing a result for the query (col. 7, lines 50-53).

Regarding on claim 69, Wical teaches the step of: outputting identifiers or locations of one or more of the documents that contain the matches or portions thereof that were output in the outputting step (col. 7, line 8).

Regarding on claim 70, Wical teaches a location of a document comprises a uniform resource locator (internet article contains address) (col. 4, lines 50-54).

Regarding on claim 71, Wical teaches the step of: ranking a plurality of documents, and wherein the second outputting step comprises outputting identifiers or locations of the documents in an order based on the ranking (col. 7, lines 50-67).

Regarding on claim 72, Wical teaches the identifying step comprises: locating a potential match for the query within a context, wherein the potential match matches the

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specified portion of the query and wherein the potential match includes a portion that corresponds to the unspecified term (col. 7, lines 50-67); and

determining whether the portion of the potential match that corresponds to the unspecified term satisfies a restriction included in the partially unspecified term (col. 8, lines 18-20).

Regarding on claims 73 and 97, Wical teaches the step of: assigning a score to a match or a portion thereof (col. 7, lines 54-55).

Regarding on claims 74 and 98, Wical teaches the step of: storing a match or a portion thereof (col. 8, lines 63-67).

Regarding on claims 75 and 99, Wical teaches the identifying step comprises identifying a plurality of matches, further comprising the step of: ranking a plurality of the identified matches or portions thereof (col. 7, lines 50-67).

Regarding on claim 76, Wical teaches the ranking is based on one or more features selected from the list consisting of the location of a match within a document, a weight assigned to a document that contains a match, the age of a document that contains a match, the source of a document that contains a match, and a format feature of a match within a document (col. 7, lines 50-67).

Regarding on claims 77 and 102/100, Wical teaches the ranking step comprises: ranking an identified match or portion thereof based on the number of times an instance of the match is identified within a plurality of contexts (col. 8, lines 1-7).

Regarding on claims 78 and 102/101, Wical teaches the ranking step comprises: ranking a plurality of the identified matches or portions thereof based on information associated with a plurality of contexts that contain a match for the query (col. 8, lines 25-30).

Regarding on claims 79 and 102/99, Wical teaches, outputting one or more of the identified matches or portions thereof in an order based on the ranking, thereby providing a result for the query (col. 7, lines 50-53).

Regarding on claim 80, Wical teaches the step of: outputting identifiers or locations of one or more of the documents that contain the matches or portions thereof that were output in the outputting step (col. 8, line 7).

Regarding on claim 81, Wical teaches the location of a document comprises a uniform resource locator (internet articles contains address) (col. 4, lines 50-53).

Claims 84 and 82 are rejected under claim 59, Wical also teaches storing an index identifying documents containing terms (col. 23, lines 50-52)

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Claims 85, 136 and 144 are rejected same as claim 59, Wical teaches method of fulfilling an information need comprising step of: storing contexts in which terms occur (col. 5, lines 30-34);

Regarding on claim 86, Wical teaches the storing step comprises storing an index identifying contexts containing terms (col. 5, lines 30-33).

Regarding on claim 87, Wical teaches the index identifies contexts containing terms or groups of terms that satisfy restrictions (col. 23, lines 50-52).

Regarding on claim 88, Wical teaches the contexts are obtained from documents accessible over the Internet (col. 20, lines 20-37).

Regarding on claim 89, Wical teaches the contexts are obtained from World Wide Web pages (internet articles) (col. 4, lines 50-53).

Regarding on claim 100, Wical teaches the ranking step comprises: ranking an identified match or portion thereof based on the number of times an instance of the match is identified within a plurality of contexts (col. 6, lines 32-34).

Regarding claim 101, Wical teaches the ranking step comprises: ranking a plurality of the identified matches or portions thereof based on information associated with a plurality of contexts identified in the identifying step that contain a match for the query (col. 8, lines 1-8).

Regarding on claims 104, 137 and 145, Wical teaches a method of fulfilling an information need comprising the steps of:

storing contexts in which terms occur (col. 5, lines 30-34);

receiving a query, wherein the query comprises a term (col. 9, lines 60-64); and

Wical does not explicitly teach locating, within the stored contexts, information related to the term, thereby identifying information to fulfill the need and producing results in which said information is ranked in accordance with a frequency of said information within one or more contexts. However, Wical teaches, "the search and retrieval system 100 receives, as input, user queries, and processes queries to identify the relevant themes" (col. 4, lines 42-45). This teaches the stored contexts are the themes that match the user queries. In addition, Wical teaches, "documents are relevance ranked with respect to the query" (col. 8, lines 1-8); however, Wical does not explicitly teach ranking by the frequency of information. On the other hand, Middlebrook teaches, "a list of possible nouns appearing in the text is compile, and the frequency of each possible noun is noted. The possible noun list is then ranked in descending order on the basic of frequency" (col. 6, lines 38-41). This teaches the ranking the results based on the frequency of the words nouns appear in the document. Therefore, it



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would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the ranking the results in based on the frequency of nouns in Middlebrook into Wical to order to produce the result which ranked in the descending order to allow the user to view the most importance one first.

Regarding on claim 105, Wical teaches the step of: outputting information related to the term (col. 8, lines 63-67).

Regarding on claim 106, Wical teaches the step of: identifying, within a collection of documents, contexts in which terms occur, and wherein the storing step comprises storing a plurality of contexts identified in the identifying step (col. 4, lines 24-32).

Regarding on claim 107, Wical teaches the collection of documents comprises World Wide Web pages (network) (col. 4, lines 30-32).

Regarding on claim 108, Wical teaches the locating step comprises: locating a context that includes the term (col. 4, lines 17-20)

Regarding on claim 109, Wical teaches the located information comprises a context that includes the term (col. 4, lines 41-45).

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Regarding on claim 110, Wical teaches the step of: outputting the context or a portion thereof (col. 7, line 8).

Regarding on claim 111, Wical teaches the query comprises a plurality of terms and wherein the locating step comprises: locating a context that includes each of the plurality of terms (col. 9, lines 60-64).

Regarding on claim 112, Wical teaches the query comprises a phrase and wherein the locating step comprises: locating a context that includes the phrase (col. 9, lines 60-64).

Regarding on claim 113, Wical teaches the step of: outputting the context or a portion thereof (output) (col. 7, line 8).

Regarding on claim 114, Wical teaches a context for a term comprises the term itself and a predetermined number of terms on either side of the term (col. 1, lines 40-50).

Regarding on claim 115, Wical teaches the query comprises a partially unspecified term (col. 6, lines 45-50).

Regarding on claim 116, Wical teaches a context for a term is stored as a finite state automaton (col. 6, lines 50-55).

Regarding on claim 117, Wical teaches a context for a term comprises a left context for the term and a right context for the term (col. 1, lines 40-50).

Regarding on claim 118, Wical teaches the locating step comprises locating a plurality of contexts, each of which includes the term (col. 6, lines 35-39).

Regarding on claim 119, Wical teaches the step of: ranking the contexts, or portions thereof (col. 7, lines 55-57).

Regarding on claim 120, Wical teaches the step of: outputting a plurality of the contexts, or portions thereof, in accordance with the ranking (col. 8, lines 1-8).

Regarding on claims 121/104, 121/109, or 121/112, Wical teaches the step of: outputting an identifier or a location of a document that contains a context that is output (col. 7, line 8).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 148-150 are rejected under 35 U.S.C. 102(e) as being Middlebrook et al. (US. Patent No. 5,930,809).

6. Regarding on claim 148, Middlebrook teaches a method executed in a computer system of fulfilling an information need comprising the step of:

Receiving a query containing an unspecified portion (wild card), said unspecified portion including a restriction that defines at least one of: a syntactical criteria (noun), a morphological criteria, and a criteria defined in accordance with a determination by a computer program (col. 4, lines 56-60); and

Identifying one or more matches for the query (col. 4, lines 54-67).

Regarding on claim 149, Middlebrook teaches a method of fulfilling an information need based on documents stored on a computer-readable medium comprising the steps of:

Receiving a query containing an unspecified portion (characters), said unspecified portion being a partially unspecified portion defining a particular set of one or more character sequences without including a wildcard character (may not contain wildcard) (col. 4, lines 56-60);

Identifying one or more documents that contain a match for at least a portion of the query (col. 4, lines 64-67); and

Locating one or more matches (location indicator) for the query within the identified one or more document (col. 4, lines 64-67).

Regarding on claim 150, Middlebrook teaches a method of fulfilling an information need based on documents stored on a computer-readable medium comprising the steps of:

Receiving a query containing a unspecified portion, said unspecified portion defining a matching restriction without specifying one or more particular characters in said query (search query can contain any sequence of characters) (col. 4, lines ;

Identifying one or more documents that contain a match for at least a portion of the query (col. 4, lines 64-67); and

Locating one or more matches (position indicator) for the query within the identified one or more documents (col. 4, lines 64-67).

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

**Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is (703) 305-1949 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached at (703) 305-4393.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231.


The fax numbers for the organization where this application or proceeding is assigned are as follow:

- (703) 746-7238 [After Final Communication]
- (703) 746-7239 [Official Communication]
- (703) 746-7240 [Non-Official Communication]

Hand-delivered responses should be brought to:

Crystal Park II  
2121 Crystal Drive  
Arlington, VA 22202  
Fourth Floor (Receptionist).

Baoquoc N. To  
September 3, 2003

  
SHAHID ALAM  
PRIMARY EXAMINER